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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/607,830

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Mark A. Bakke

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EXAMINER

TRAN, PHILIP B

ART UNIT

PAPER NUMBER

2155

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/607,830	Applicant(s) BAKKE ET AL	
	Examiner Philip B. Tran	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 23-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 23-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

Notice to Applicant

1. This communication is in response to amendment filed April 06 2006. Claims 2, 11 and 19-20 have been canceled. Claims 1, 3-6, 8, 10, 12-15 and 17 have been amended. Therefore, claims 1, 3-10 and 12-18 are pending for further examination.

Response to Amendment

Notice to Applicant

2. This communication is in response to amendment filed April 06 2006. Claims 2, 11 and 19-20 have been canceled. Claims 1, 3-6, 8, 10, 12-15 and 17 have been amended. Therefore, claims 1, 3-10 and 12-18 are pending for further examination.

Claim Rejections - 35 U.S.C. § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-19, 14-32 and 36-42 are rejected under 35 U.S.C. § 102(e) as being anticipated by Hebert, U.S. Pat. No. 6,718,383.

Regarding claim 1, Hebert teaches a method for providing failover for a network address in an application gateway device having a first network interface and at least a second network interface, the method comprising:

receiving a set of configuration data for the application gateway device, the configuration data including a first network address for the first network interface and a second network address for the second network interface (= configuration of two network connections with a primary NIC and a second NIC) [see Abstract and Figs. 3-7 & 12-13];

detecting a failure in the first network interface, and analyzing the configuration data to determine if the first network address can be used on the second network interface, and if so, moving the first network address to the second network interface (= detecting if there is a failure on a primary network connection, then configuring the second network interface with the parameters of the primary network interface) [see Col. 2, Lines 8-58 and Col. 6, Line 46 to Col. 8, Line 5 and Col. 9, Lines 7-59].

Regarding claim 2, Hebert further teaches the method of claim 1, wherein the network address is an IP (Internet Protocol) address [see Abstract].

Regarding claim 3, Hebert further teaches the method of claim 2, further comprising determining if the second network interface will support an additional MAC (Media Access Control) address to be associated with the first IP address [see Col. 6, Lines 17-45].

Regarding claim 4, Hebert further teaches the method of claim 1, wherein analyzing the configuration data includes determining if the first network address and the second network address are on the same network [see Col. 4, Line 60 to Col. 5, Line 32 and Col. 6, Lines 17-45].

Regarding claim 5, Hebert further teaches the method of claim 1, wherein analyzing the configuration data includes determining if the first network address and the second network address are on the same subnet [see Figs. 4 & 7 and Col. 4, Line 60 to Col. 5, Line 32 and Col. 6, Lines 17-45].

Regarding claim 6, Hebert further teaches the method of claim 1, further comprising determining if the second network interface is capable of adding the first network address [see Abstract and Col. 6, Line 46 to Col. 8, Line 5 and Col. 9, Lines 7-59].

Regarding claim 7, Hebert further teaches the method of claim 1, further comprising issuing a gratuitous ARP (Address Resolution Protocol) packet [see Col. 4, Line 60 to Col. 5, Line 32].

Regarding claim 8, Hebert further teaches the method of claim 1, further comprising determining if another application gateway device on the network is

Art Unit: 2155

configured to use the first network address [see Col. 4, Line 60 to Col. 5, Line 32 and Col. 6, Lines 17-45].

Regarding claim 9, Hebert further teaches the method of claim 1, further comprising determining if the second network interface can support a VLAN (Virtual Local Area Network) associated with the first network address [see Abstract and Col. 13, Lines 30-48].

Regarding claim 10, Hebert further teaches the method of claim 1, wherein the network interface is an Ethernet interface [see Col. 6, Lines 17-45].

Regarding claim 14, Hebert further teaches the method of claim 10, further comprising issuing a gratuitous ARP packet [see Col. 4, Line 60 to Col. 5, Line 32].

Regarding claim 15, Hebert further teaches the method of claim 1, wherein analyzing the configuration includes determining if the network address is in use by another application gateway device on a network communicatively coupled to the first and second network interfaces [see Col. 4, Line 60 to Col. 5, Line 32 and Col. 6, Line 46 to Col. 8, Line 5 and Col. 9, Lines 7-59].

Claim 16 is rejected under the same rationale set forth above to claim 1.

Claim 17 is rejected under the same rationale set forth above to claim 10.

Claims 18-19 are rejected under the same rationale set forth above to claims 2-3.

Claim 20 is rejected under the same rationale set forth above to claim 6.

Claim 21 is rejected under the same rationale set forth above to claim 8.

Claims 23-32 are rejected under the same rationale set forth above to claims 1-10.

Claim 38 is rejected under the same rationale set forth above to claim 1.

Claims 39-42 are rejected under the same rationale set forth above to claims 3-6.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 11-13 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hebert, U.S. Pat. No. 6,718,383 in view of Osafune et al (Hereafter, Osafune), U.S. Pat. Application Pub. No. US 2002/0023150 A1.

Regarding claim 11, Hebert does not explicitly teach the method of claim 10, wherein moving the first network address to the second network interface comprises removing the network address from the first interface, removing a MAC address associated with the network address from a static routing table associated with the first interface, moving the network address and the MAC address to the second network interface, and reinstalling the static routing table on the second network interface. However, Osafune, in the same field of failover mechanism endeavor, discloses detecting a fault occurring in the path between its active network interface, removing network address from the routing table and changing IP address assignment as well as MAC address from its active network interface to its standby network interface [see Osafune, Abstract and Paragraphs 0016-0019]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the teaching of Osafune into the teaching of Hebert in order to quickly identify a failure occurring on a link in the network and immediately provide a reconfiguration for a backup link without much delaying in routing data service in the network.

Regarding claims 12-13, Hebert further teaches the method of claim 10, further comprising removing at least one ARP entry for at least one host on a subnet associated with the first network address and flushing cached routes for TCP, UDP and

IP protocols. However, Osafune, in the same field of failover mechanism endeavor, discloses detecting a fault occurring in the path between its active network interface, removing network address from the routing table and changing IP address assignment as well as MAC address from its active network interface to its standby network interface and updating the ARP cache [see Osafune, Figs. 1-9 and Abstract and Paragraphs 0006-0007 & 0016-0019]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the teaching of Osafune into the teaching of Hebert for the same reasons set forth above to claim 11.

Claims 33-35 are rejected under the same rationale set forth above to claims 11-13.

Response to Arguments

7. Applicant's arguments have been fully considered but they are not persuasive because of the following reasons:

Based on the broadest reasonable interpretation, Hebert still teaches a method for providing failover for a network address in an application gateway device having a first network interface and at least a second network interface, the method comprising receiving a set of configuration data for the application gateway device, the configuration data including a first network address for the first network interface and a second network address for the second network interface. For example, Hebert discloses configuration of two network connections with a primary NIC and a second NIC [see Hebert, Abstract and Figs. 3-7 & 12-13]. In addition, Hebert further teaches

Art Unit: 2155

detecting a failure in the first network interface, and analyzing the configuration data to determine if the first network address can be used on the second network interface, and if so, moving the first network address to the second network interface. For example, Hebert further discloses detecting if there is a failure on a primary network connection, then configuring the second network interface with the parameters of the primary network interface [see Hebert, Col. 2, Lines 8-58 and Col. 6, Line 46 to Col. 8, Line 5 and Col. 9, Lines 7-59].

Clearly, Hebert discloses monitoring the heartbeat and detecting a failure in heartbeat [see Hebert, Col. 6, Line 46 to Col. 7, Line 45] and determining whether threshold parameter has been exceeded (including reading a threshold parameter from a configuration file) [see Hebert, Col. 11, Line 55 to Col. 12, Line 12]. These examples illustrate the process of detecting a failure in the first network interface, and **analyzing the configuration data** to determine if the first network address can be used on the second network interface. After that, if there is a failure on a primary network connection, then configuring the second network interface with the parameters of the primary network interface as discussed above.

Therefore, the examiner asserts that the cited prior arts teach or suggest the subject matter recited in independent claims. Dependent claims are rejected at least by virtue of their dependency on independent claims and by other reasons set forth above. Accordingly, claims 1-21 and 23-42 are respectfully rejected as shown above.

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CAR 1.136(a).

A SHORTENED STATUTORY PERIOD FOR REPLY TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE MAILING DATE OF THIS ACTION. IN THE EVENT A FIRST REPLY IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 CAR 1.136(A) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT, HOWEVER, WILL THE STATUTORY PERIOD FOR REPLY EXPIRE LATER THAN SIX MONTHS FROM THE MAILING DATE OF THIS FINAL ACTION.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Tran whose telephone number is (571) 272-3991. The Group fax phone number is (571) 273-8300. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar, can be reached on (571) 272-4006.

Art Unit: 2155

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip B Tran/
Primary Examiner, Art Unit 2155
March 28, 2008